

WHAT IS CLAIMED IS:

- 5 1. A position location device comprising:
 a processor;
 a global positioning system receiver connected to
the processor; and
 a pressure transducer connected to the processor.
- 10 2. The position location device of claim 1, wherein the
processor and global positioning system are contained within a
waterproof casing.
- 15 3. The position location device of claim 1, further
comprising:
 clock circuitry connected to the processor; and
memory connected to the processor; and
 at least one input/output device connected to the
20 processor.
4. The position location device of claim 3, wherein one
of the input/output devices is a microphone.
- 25 5. The position location device of claim 3, wherein one
of the input/output devices is a keypad including at least one
button.
6. The position location device of claim 1, further
30 comprising:
 a flow meter connected to the processor; and
 a compass connected to the processor.
7. The position location device of claim 6, wherein
35 flow meter is an impeller.

5 8. The position location device of claim 6, further comprising a buoy including a G.P.S. antenna connected to the processor via a communication cable.

9. The position location device of claim 6, further comprising:

10 a pressure transducer connected the processor; and
wherein the pressure transducer is configured to generate a signal indicative of air pressure within an air tank.

15 10. The position location device of claim 1, further comprising a digital camera connected to the processor.

20 11. A position location device comprising:
means for measuring latitude, longitude;
means for measuring depth underwater;
means for measuring time; and
means for recording measurements of latitude, longitude, depth and time.

25 12. The position location device of claim 11, further comprising means for annotating recorded measurements of latitude, longitude, depth or time.

30 13. The position location device of claim 11, further comprising means for identifying a particular measurement of latitude, longitude, depth or time as being associated with a particular point of interest.

35 14. The position location device of claim 11, wherein the time includes information concerning day, month and year.

15. The position location device of claim 11, further comprising:

5 means for measuring water speed; and
 means for measuring bearing.

16. The position location device of claim 15, further comprising means for measuring air time remaining.

10

17. A dive computer comprising:

 a processor;
 memory connected to the processor for storing data;
 a microphone connected to the processor; and
15 a pressure transducer connected to the processor.

18. The dive computer of claim 17, wherein:

 the microphone is configured to generate a signal indicative of sound; and

20

 the processor is configured to store a digital representation of the signal generated by the microphone in memory.

19. The dive computer of claim 18, wherein the processor is configured to convert the signal indicative of sound into signals indicative of the particular word or words that were spoken to generate the sound.

25

20. The dive computer of claim 18, wherein:

30

 the signal generated by the microphone is analog;
and

 the connection between the microphone and the processor includes an analog-to-digital converter.

35

21. A dive computer, comprising:
means for measuring depth;
5 means for detecting sound; and
means for selecting one of a plurality of options in
response to the detected sound.

22. The dive computer of claim 21, wherein selection of
10 one of a plurality of options involves the selection of a word
from a vocabulary of words.

23. A dive computer, comprising:
means for measuring depth; and
15 means for capturing digital images.

24. A method of recording data, comprising:
performing a first measurement of latitude,
longitude and time;
20 descending underwater; and
measuring depth and time.

25. The method of claim 24, further comprising:
resurfacing; and
25 performing a second measurement of latitude,
longitude and time.

26. The method of claim 24, further comprising:
recording the first measurement of latitude,
30 longitude and time in a memory;
recording the measurement of depth and time in the
memory; and
recording the second measurement of latitude,
longitude and time in the memory.

27. The method of claim 26, further comprising the step
of identifying a particular measurement of latitude, longitude
5 and time or measurement of depth and time as being associated
with a particular point of interest.

28. The method of claim 27, further comprising the step
of recording descriptive information that is associated with
10 the identified measurement of latitude, longitude and time or
measurement of depth and time.

29. The method of claim 28, wherein recording
descriptive information involves recording signals indicative
15 of speech.

30. The method of claim 24, wherein the time includes
information concerning day, month and year.

20 31. The method of claim 24, wherein:
the measurements of latitude, longitude and time are
made using a global positioning system receiver adapted to be
taken below the surface of the water; and
the measurements of depth are made using a pressure
25 transducer.

32. The method of claim 24, further comprising
periodically measuring water speed and bearing.

30 33. The method of claim 32, further comprising:
measuring average speed;
measure air time remaining; and
estimate range based on average speed and air time
remaining calculations.
35

1 **48899/DJB/A647**

34. A dive computer, comprising:

a processor;

5 a speaker connected to the processor; and

a pressure transducer connected to the processor.

10

15

20

25

30

35